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PERMITS TO CONSTRUCT/OPERATE

OWNER/OPERATOR:

KIRKHILL – TA COMPANY
300 E. CYPRESS STREET
BREA, CA 92821

EQUIPMENT LOCATION:

SAME AS ABOVE

PERMIT EQUIPMENT DESCRIPTION (A/N 517155, 57)
Change of Condition

SECTION D: PERMIT TO OPERATE ALONG WITH SPECIFIC CONDITIONS

PROCESS 2: RUBBER PRODUCTS MANUFACTURE
SYSTEM 1: CARBON BLACK UNLOADING AND CONVEYING SYSTEM

EQUIPMENT	ID NO	CONNECTED TO	SOURCE TYPE/ MONITORING UNIT	EMISSION*	EQUIPMENT SPECIFIC CONDITION
HOPPER, DUMP, RECIVING HOPPER WITH BAG BREAKER, CARBON BLACK A/N: C43480	D3	C100		PM(9) [RULE 405, 2-7-1986]	D323.2 SEE FACILITY CONDITION F1.1
BUCKET ELEVATOR A/N: C43480	D6	C100		PM(9) [RULE 405, 2-7-1986]	D323.2 SEE FACILITY CONDITION F1.1

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SECTION H: PERMIT TO CONSTRUCT ALONG WITH SPECIFIC CONDITIONS

PROCESS 2: RUBBER PRODUCTS MANUFACTURE
SYSTEM 1: CARBON BLACK UNLOADING AND CONVEYING SYSTEM

EQUIPMENT	ID NO	CONNECTED TO	SOURCE TYPE/ MONITORING UNIT	EMISSION*	EQUIPMENT SPECIFIC CONDITION
HOPPER, FLOOR TYPE, 1 CU.FT. CAPACITY, 1 FT. 6IN. W. X 1 FT. 6 IN. L. X 2 GT. 4 IN. H., FIXED LID WITH INLET PORT AND AGITATOR ASSEMBLY, ELECTRIC MOTOR, 0.5 HP. WITH A/N:484289 PERMIT TO CONSTRUCT ISSUED 05/30/09 CONVEYOR, SCREW TYPE, FLEXICON BEV-CON, MODEL 1500, 4.5 IN. DIA. X 15 FT. L, GEAR, ASSEMBLY WITH 5 H.P. MOTOR	D134	C100 C136		PM(9) [RULE 405, 2-7-1986] PM(9) [RULE 405, 2-7-1986]	D323.2, E57.1 SEE FACILITY CONDITION F1.1
BULK MATERIAL LOAD/UNLOAD STATION, PORTABLE TOTE ASSEMBLY, CARBON BLACK, UNFLANGED INLET PORT AND VENT PORT. A/N:484289 PERMIT TO CONSTRUCT ISSUED 05/30/09	D137	C100		PM(9) [RULE 405, 2-7-1986]	E57.1 SEE FACILITY CONDITION F1.1

SECTION D: PERMIT TO OPERATE ALONG WITH SPECIFIC CONDITIONS

PROCESS 2: RUBBER PRODUCTS MANUFACTURE
SYSTEM 2: RUBBER CONVEYING AND MIXING SYSTEM

EQUIPMENT	ID NO	CONNECTED TO	SOURCE TYPE/ MONITORING UNIT	EMISSION*	EQUIPMENT SPECIFIC CONDITION
BUCKET ELEVATOR A/N: 517155	D11	C100		PM(9) [RULE 405, 2-7-1986]	D323.2 SEE FACILITY CONDITION F1.1

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MIXER, BOLLING, RUBBER A/N: 517155	D12	C100		PM(9) [RULE 405, 2-7-1986]	D323.2 B163.2 C1.9 SEE FACILITY CONDITION F1.1
HOPPER, DUMP, 100 CU.FT. A/N: 517155	D13			PM(9) [RULE 405, 2-7-1986]	D323.2
HOPPER, DUMP, 100 CU.FT. A/N: 517155	D14			PM(9) [RULE 405, 2-7-1986]	D323.2
HOPPER, DUMP, 100 CU.FT. A/N: 517155	D15			PM(9) [RULE 405, 2-7-1986]	D323.2
HOPPER, DUMP, 100 CU.FT. A/N: 517155	D16			PM(9) [RULE 405, 2-7-1986]	D323.2
HOPPER, WEIGH A/N: 517155	D17			PM(9) [RULE 405, 2-7-1986]	D323.2
BULK MATERIAL LOAD/UNLOAD A/N: 517155	D18			PM(9) [RULE 405, 2-7-1986]	D323.2
WEIGH STATION A/N: 517155	D19			PM(9) [RULE 405, 2-7-1986]	D323.2
MILL, BLACK RUBBER, TWO ROLL A/N: 517157	D20	C100		PM(9) [RULE 405, 2-7-1986]	D323.2 B163.2 SEE FACILITY CONDITION F1.1

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PERMIT EQUIPMENT DESCRIPTION (A/N 514856, 57, 58, 59)

Change of Location/New Construction

SECTION D: PERMIT TO CONSTRUCT/OPERATE ALONG WITH SPECIFIC CONDITIONS

MILL, BLACK, NO. 2, SILICONE RUBBER, PACIFIC MODEL NO. 48, 4'-9"W X 13'-10" L X 5'-10"H, 50 HP. A/N: 514856	D138	C100		PM(9) [RULE 405, 2-7-1986]	B163.2 D323.2 SEE FACILITY CONDITION F1.1
BAGHOUSE, MAC, MODEL NO. 120-LST-196, PULSE JET TYPE, 196 FILTERS, TOTAL FILTER AREA 3,079 SQ. FT. A/N: 514857	C139	D21, D25, D152 D141, D147, D148, D149		PM: (9) [RULE 404, 2-7-1986]	D12.1, D322.1, D381.2, E102.1, E160.1, K67.5 H23.7 SEE FACILITY CONDITION F1.2
MILL, ROLL, SILICONE RUBBER, NO. 2 PACIFIC MODEL NO. 60, 6'-3"W X 21'-4"L X 6'-8"H., 125 HP. A/N: 514858	D152	C139		PM(9) [RULE 405, 2-7-1986]	D323.2 B163.2 SEE FACILITY CONDITION F1.2
MILL, ROLL, SILICONE RUBBER, NO. 3 4'-0"W X 3'-8"L X 5'-4.5"H., 5 HP. A/N: 514859	D141	C139		PM(9) [RULE 405, 2-7-1986]	D323.2 B163.2 SEE FACILITY CONDITION F1.2

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PERMIT EQUIPMENT DESCRIPTION (A/N 517158)

Change of Condition

SECTION D: PERMIT TO OPERATE ALONG WITH SPECIFIC CONDITIONS

PROCESS 2: RUBBER PRODUCTS MANUFACTURE
SYSTEM 4: RUBBER COATING SYSTEM

EQUIPMENT	ID NO	CONNECTED TO	SOURCE TYPE/ MONITORING UNIT	EMISSION*	EQUIPMENT SPECIFIC CONDITION
SPRAY COATING OPERATION, WITH SPRAY BOOTH A/N: 517158	D50			PM: (9)[RULE 404, 2-7-1986]; ROG: (9) [RULE 1124, 12-13-1996; RULE 1145, 12-04-2009; RULE 1171, 5-01-2009; RULE 1171, 11-07-2003] RULE 1168, 2-13-1998	A63.3 , B59.2 C1.2 , C6.1, D322.1E175.1, H23.1 K67.1, K67.6

PERMIT EQUIPMENT DESCRIPTION (A/N 514860, 61, 63, 64)

Equipment Operating Without a Permit

SECTION D: PERMIT TO OPERATE ALONG WITH SPECIFIC CONDITIONS

PROCESS 2: RUBBER PRODUCTS MANUFACTURE
SYSTEM 5: RUBBER CURING SYSTEM

EQUIPMENT	ID NO	CONNECTED TO	SOURCE TYPE/ MONITORING UNIT	EMISSION*	EQUIPMENT SPECIFIC CONDITION
OVEN, CURING, ELECTRIC, MODEL NO. E 4006-6, 18 KW A/N: 514860	D142	C150			D323.2 B27.1 C1.10
OVEN, CURING, ELECTRIC, MODEL NO. E 4006-6, 18 KW A/N: 514861	D143	C150			D323.2 B27.1 C1.10
OVEN, CURING, ELECTRIC, MODEL NO. E 4006-6, 12 KW A/N: 514863	D144	C150			D323.2 B27.1 C1.10

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OVEN, CURING, ELECTRIC, MODEL NO. E 4004-4, 4 KW A/N: 514864	D145	C150			D323.2 B27.1 C1.10
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PERMIT EQUIPMENT DESCRIPTION (A/N 514865)
New Construction

SECTION D: PERMIT TO CONSTRUCT/OPERATE ALONG WITH SPECIFIC CONDITIONS

PROCESS 2: RUBBER PRODUCTS MANUFACTURE
SYSTEM 5: RUBBER CURING SYSTEM

EQUIPMENT	ID NO	CONNECTED TO	SOURCE TYPE/ MONITORING UNIT	EMISSION*	EQUIPMENT SPECIFIC CONDITION
OVEN, CURING, ELECTRIC, MODEL NO. E 4004-4, 8 KW A/N: 514865	D146	C150			D323.2 B27.1 C1.10

PERMIT EQUIPMENT DESCRIPTION (A/N 514866, 67, 68)
New Construction

SECTION D: PERMIT TO CONSTRUCT/OPERATE ALONG WITH SPECIFIC CONDITIONS

PROCESS 2: RUBBER PRODUCTS MANUFACTURE
SYSTEM 2: RUBBER CONVEYING AND MIXING SYSTEM

EQUIPMENT	ID NO	CONNECTED TO	SOURCE TYPE/ MONITORING UNIT	EMISSION*	EQUIPMENT SPECIFIC CONDITION
MILL, ROLL, SILICONE RUBBER, NO. 1 ROOM, 6'-8"W X 21'-6"L X 5'-0"H., 150 HP. A/N: 514866	D147	C139		PM(9) [RULE 405, 2-7-1986]	D323.2 B163.2 SEE FACILITY CONDITION F1.2

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MILL, ROLL, SILICONE RUBBER, NO. 2 ROOM, 4'-10"W X 12'-10"L X 4'-8"H., 50 HP. A/N: 514867	D148	C139		PM(9) [RULE 405, 2-7-1986]	D323.2 B163.2 SEE FACILITY CONDITION F1.2
MILL, ROLL, SILICONE RUBBER, NO. 153 MODEL NO. 3760 BCD, 8'-0"W X 18'-10"L X 5'-9"H., 75 HP. A/N: 514868	D149	C139		PM(9) [RULE 405, 2-7-1986]	D323.2 B163.2 SEE FACILITY CONDITION F1.2

PERMIT EQUIPMENT DESCRIPTION (A/N 514869, 70, 71)

Modification

Addition of roll mill (D138)

SECTION D: PERMIT TO CONSTRUCT/OPERATE ALONG WITH SPECIFIC CONDITIONS

PROCESS 2: RUBBER PRODUCTS MANUFACTURE
SYSTEM 6: AIR POLLUTION CONTROL SYSTEM

EQUIPMENT	ID NO	CONNECTED TO	SOURCE TYPE/ MONITORING UNIT	EMISSION*	EQUIPMENT SPECIFIC CONDITION
BAGHOUSE, FARR CO., TENKAY MODEL 50, PLUSE JET TYPE, 50 FILTERS, CARTRIDGE TYPE, TOTAL FILTER AREA 10,000 SQ. FT. A/N: 514869	C100	D3, D6, D11, D12, D20, D134 D137, D138		PM(9) [RULE 404, 2-7-1986]	D322.1, D381.2 E102.1, K67.5 H23.7 D12.2, E160.1 SEE FACILITY CONDITION F1.1

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Modification

Disconnect from C22 and connect to C139

SECTION D: PERMIT TO CONSTRUCT/OPERATE ALONG WITH SPECIFIC CONDITIONS

PROCESS 2: RUBBER PRODUCTS MANUFACTURE
SYSTEM 2: RUBBER CONVEYING AND MIXING SYSTEM

EQUIPMENT	ID NO	CONNECTED TO	SOURCE TYPE/ MONITORING UNIT	EMISSION*	EQUIPMENT SPECIFIC CONDITION
MIXER, BANBURY MIXER NO. 3A, RUBBER A/N: 514870	D21	C22, C139		PM(9) [RULE 405, 2-7-1986]	D323.2, B163.2 SEE FACILITY CONDITION F1.2

Modification

Disconnect and remove C26, connect to C139

SECTION D: PERMIT TO CONSTRUCT/OPERATE ALONG WITH SPECIFIC CONDITIONS

PROCESS 2: RUBBER PRODUCTS MANUFACTURE
SYSTEM 2: RUBBER AND CONVEYING SYSTEM

EQUIPMENT	ID NO	CONNECTED TO	SOURCE TYPE/ MONITORING UNIT	EMISSION*	EQUIPMENT SPECIFIC CONDITION
MILL, ROLL, SILICON RUBBER, A/N: 514871	D25	C26, C139		PM(9) [RULE 405, 2-7-1986]	D323.2, SEE FACILITY CONDITION F1.2
BAGHOUSE, FARR, MODEL 12L TENKAY CARTRIDGE TYPE, 12 CARTRIDGE A/N: 123916	C22	D21		PM: (9) [RULE 404, 2-7-1986]	D12.1, D322.2, D381.1, E102.1, E160.1, K67-5
BAGHOUSE, BREZHT MFG. CO. A/N: 04323A	C26	D25		PM(9) [RULE 405, 2-7-1986]	D323.2

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PERMIT EQUIPMENT DESCRIPTION (A/N 514872)

New Construction

SECTION D: PERMIT TO CONSTRUCT/OPERATE ALONG WITH SPECIFIC CONDITIONS

PROCESS 2: RUBBER PRODUCTS MANUFACTURE
SYSTEM 3: RUBBER EXTRUDING AND CURING SYSTEM

EQUIPMENT	ID NO	CONNECTED TO	SOURCE TYPE/ MONITORING UNIT	EMISSION*	EQUIPMENT SPECIFIC CONDITION
ELECTROSTATIC PRECIPITATOR, UNITED AIR SPECIALISTS, SMOG HOG, MODEL NO. SHN-40, 5 HP BLOWER. A/N: 514872	C150	D142, D143, D144, D145 D146		PM(9) [RULE 404, 2-7-1986]	D322.1 D323.2, K67.1 H23.7

FACILITY CONDITIONS

F1.1 The operator shall limit the material processed to no more than 855,500 lb(s) in any one month.

The operator shall maintain records in a manner approved by the District to demonstrate compliance with this condition.

For the purpose of this condition, material processed shall be defined as all material processed through equipment vented to air pollution control device C100.

For the purpose of this condition, equipment vented to air pollution control device C100 shall include Devices D3, D6, D11, D12, D20, D134, D137 and D138.

F1.2 The operator shall limit the material processed to no more than 284,507 lb(s) in any one month.

The operator shall maintain records in a manner approved by the District to demonstrate compliance with this condition.

For the purpose of this condition, material processed shall be defined as all material processed through equipment vented to air pollution control device C139.

For the purpose of this condition, equipment vented to air pollution control device C139 shall include Devices D21, D25, D141, D147, D148, D149, and D152.

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OPERATING PERMIT CONDITIONS

A. EMISSION LIMITS

A63.3 The operator shall limit emissions from this equipment as follows:

CONTAMINANT	EMISSION LIMIT	AMOUNT	TIME SPAN
ROG	Less than or equal to	202	pounds in any 30 days

For the purpose of this condition, ROG shall be defined as less water and exempt solvent

[RULE 1303(b)(2)-Offset, 12-6-2002]

[Devices subject to this condition : D50]

B. Material/Fuel Type Limits

B27.1 The operator shall not use materials containing toxic air contaminants (TACs) identified in the SCAQMD Rule 1401, as amended 09/10/2010.

[RULE 1401, 09-10-2010]

[Devices subject to this condition: D142, D143, D144, D145, D146]

B59.2 The operator shall not use the following materials(s) in this device:

Photochemically reactive organic solvents and/or coatings containing photochemically reactive organic solvents

[RULE 442, 12-15-2000]

[Devices subject to this condition : D50]

B163.2 The operator shall not use materials containing the following:

Any compounds identified as toxic air contaminants in Rule 1401, Table II, with an effective date as amended September 10, 2010 or earlier, except for Bis(2-chloroethyl)phthalate (DEHP) (CAS # 117-81-7), Cadmium and Cadmium Compounds (CAS # 7440-43-9), Carbon Tetrachloride (CAS # 56-23-5), Chloroprene (CAS # 126-99-8), Ethylene Thiourea (CAS # 96-45-7), Lead Chromate (CAS # 7758-97-6), Nickel and Nickel Compounds (CAS # 7440-02-0), Zinc and Zinc Compounds (CAS # 7440-66-6).

[Devices subject to this condition: D12, D20, D21, D25, D138, D141, D147, D148, D149, D152]

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C. Throughput or Operating Parameter Limits

~~C1.1 The operator shall limit the coating and solvent usage to no more than 8.4 gallon(s) per day.~~

~~_____ This includes no more than 50 hours in any one year for maintenance and testing.~~

~~_____ [RULE 1303(b)(2)-Offset, 12-6-2002]~~

~~_____ [Devices subject to this condition: D50]~~

C1.9 The operator shall limit the material processed to no more than 22, 222 pounds in any one day.

[RULE 1303(a)(1)-BACT, 12-6-2002; RULE 3004(a)(4)- Periodic Monitoring, 12-12-1997]

[Devices subject to this condition: D12]

C1.10 The operator shall limit the material processed to no more than 340 pounds in any one day.

This limit shall be based on the total combined limit for equipment D142, D143, D144, D145, D146

[RULE 1303(a)(1)-BACT, 12-6-2002; RULE 3004(a)(4)- Periodic Monitoring, 12-12-1997]

[Devices subject to this condition: D142, D143, D144, D145, D146]

C6.1 The operator shall use this equipment in such a manner that the differential pressure being monitored, as indicated below, does not exceed 0.25 inches water column.

To comply with this condition, the operator shall install and maintain a(n) differential pressure gauge to accurately indicate the differential pressure across the filter.

[RULE 1303(a)(1)-BACT, 12-6-2002; RULE 3004(a)(4)- Periodic Monitoring, 12-12-1997]

[Devices subject to this condition: D50]

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D. Monitoring/Testing Requirements

D12.1 The operator shall install and maintain a(n) pressure gauge to accurately indicate the differential pressure across the filter.

[RULE 1303(a)(1) – BACT, 12-06-2002]

[Devices subject to this condition: C24, C28, C29, C139]

D322.1 The operator shall perform a weekly inspection of the equipment and filter media for leaks, broken or torn filter media, and improperly installed filter media.

[RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997]

[Devices subject to this condition: D50, C100, C139, C150]

D323.2 The operator shall conduct an inspection for visible emissions from all stacks and other emission points of this equipment whenever there is a public complaint of visible emissions, whenever visible emissions are observed, and on an annual basis, at least, unless the equipment did not operate during the entire annual period. The routine annual inspection shall be conducted while the equipment is in operation and during daylight hours. If any visible emissions (not including condensed water vapor) are detected that last more than three minutes in any one hour, the operator shall either:

- 1.) Verify and certify within 24 hours that the equipment causing the emission and any associated air pollution control equipment are operating normally according to their design and standard procedures and under the same conditions under which compliance was achieved in the past;
- 2.) Take corrective action(s) that eliminate the visible emission within 24 hours and report the visible emissions as a potential deviation in accordance with the reporting requirements in Section K of this permit; or
- 3.) Have a CARB-certified smoke reader determine compliance with the opacity standard, using EPA Method 9 or the procedures in the CARB manual "Visible Emission Evaluation", within three business days and report any deviations to AQMD.

The operator shall keep the records in accordance with the recordkeeping requirements in Section K of this permit and the following records:

- 1.) Stack or emission point identification;
- 2.) Description of any corrective actions taken to abate visible emissions;
- 3.) Date and time visible emission was abated; and

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4.) Visible emission observation record by a certified smoke reader.

[RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997]

[Devices subject to this condition: D3, D4, D5, D6, D11, D12, D13, D14, D15, D16, D17, D18, D19, D20, D21, D23, D25, D27, D32, D33, D34, D37, D38, D39, D40, D41, D42, D43, C44, C45, D53, D54, D55, D56, D57, D58, D59, C124, D126, C127, D128, D138, D141, D142, 143, D144, D145, D146, D147, D148, D149, C150, D152]

D381.2

The operator shall conduct an inspection for visible emissions from all stacks and other emission points of this equipment whenever there is a public complaint of visible emissions, whenever visible emissions are observed, and on a annual basis, at least, unless the equipment did not operate during the entire annual period. The routine semi-annual inspection shall be conducted while the equipment is in operation and during daylight hours. If any visible emissions (not including condensed water vapor) are detected, the operator shall take corrective actions(s) that eliminates the visible emission within 24 hours and report the visible emissions as a potential deviation in accordance with the reporting requirements in Section K of this permit.

The operator shall keep the records in accordance with the recordkeeping requirements in Section K of this permit and the following records:

1. Stack or emission point identification;
2. Description of any corrective actions taken to abate visible emissions; and
3. Date and time visible emission was abated.

[RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997]

[Devices subject to this condition: D7, D8, D9, D10, E105, C100, C139]

E. Equipment Operation/Construction Requirements

E102.2

The operator shall discharge dust collected in this equipment only into closed containers.

[RULE 1303(a)(1)-BACT, 12-06-2002, RULE 1303(b)(2)-Offset, 12-06-2002]

[Devices subject to this condition: C24, C28, C29, C100, C139, E105, E106]

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E160.1 The operator shall clean the filters whenever the static differential pressure across the bags is 4 inches water column or greater.

[RULE 1303(a)(1)-BACT, 12-06-2002, RULE 1303(b)(2)-Offset, 12-06-2002]

[Devices subject to this condition: C100, C139]

E175.1 The operator shall not use this equipment unless all exhaust air passes through the following:

Filter media at least 2 inches thick

[RULE 1303(b)(2)-Offset, 12-6-2002]

[Devices subject to this condition: D50]

H. Applicable Rules

H23.1 This equipment is subject to the applicable requirements of the following rules or regulations:

<u>Contaminant</u>	<u>Rule</u>	<u>Rule/Subpart</u>
VOC	District Rule	109
VOC	District Rule	442
PM	District Rule	481
VOC	District Rule	1124
VOC	District Rule	1145

[Rule 109, 5-2-2003; RULE 442, 12-15-2000; RULE 481, 1-11-2002; RULE 1124, 9-21-2001; RULE 1145, 12-04-2009]

[Devices subject to this condition: D50]

H23.7 This equipment is subject to the applicable requirements of the following rules or regulations:

<u>Contaminant</u>	<u>Rule</u>	<u>Rule/Subpart</u>
PM	District Rule	1155

[Devices subject to this condition: C100, C139, C150]

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K. Record Keeping/Reporting

K67.1 The operator shall keep records, in a manner approved by the District, for the following parameter(s) or item(s):

The name of the person performing the inspection and/or maintenance of the filter media

The date, time and results of the inspection

The date, time and description of any maintenance or repairs resulting from the inspection

[RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997]

[Devices subject to this condition: C100, C139, C150, D50]

K67.6 The operator shall keep records, in a manner approved by the District, for the following parameter(s) or item(s):

Daily record of pressure drop across the filter media

[RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997]

[Devices subject to this condition: D50]

(4) Denotes BACT emission limit

(5) Denotes command and control emission limit

(5A) Denotes command and control emission limit

** Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

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BACKGROUND:

Kirkhill TA Company is a Title V and RECLAIM facility. Kirkhill is a leading manufacturer of highly engineered, organic, and inorganic elastomeric based products. Kirkhill is also the leading domestic producer of precision silicone seals for commercial and military aircraft, rocket and missile liner insulation materials, and the application of specific engineered products serving the defense, industrial and commercial markets.

On September 21, 2010 Kirkhill submitted sixteen (17) applications for a variety of reasons. Each application and a brief description of the action to be taken are shown below:

Application No.	Equipment Description	Action
515338	RECLAIM/Title V amend	Plan
514856	Roll Mill	Change of Location from other Kirkhill location.
514857	Baghouse	Change of Location from other Kirkhill location.
514858	Rubber Mill	Change of Location from other Kirkhill location.
514859	Rubber Mill	New Construction
514860	Curing Oven	Existing, operating without a permit
514861	Curing Oven	Existing, operating without a permit
514863	Curing Oven	Existing, operating without a permit
514864	Curing Oven	Existing, operating without a permit
514865	Curing Oven	New Construction
514866	Roll Mill	New Construction
514867	Roll Mill	New Construction
514868	Roll Mill	New Construction
514869	Baghouse	Modification to add basic equipment
514870	Mixer	Modification to vent to new baghouse
514871	Roll Mill	Modification to vent to new baghouse
514872	Electrostatic Pre	New Construction

In addition to the new and modified equipment mentioned above, Kirkhill will be removing two baghouses from their Title V/RECLAIM permit. These baghouses are:

Permit/App. No.	Equipment Description	Action
M41320/123916	Baghouse C22	Remove from Facility Permit
S03003/04323A	Baghouse C26	Remove from Facility Permit

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These two baghouses are being replaced with a single baghouse that is being relocated from Kirkhill's other facility. The equipment that will be relocated from Kirkhill facility located at 333 Cliffwood Park, Brea, CA (Facility ID No. 3436) to the Kirkhill facility located at 300 E. Cypress Street, Brea, CA (Facility ID No. 1744) will need to have their permits inactivated once they are removed from the facility. The list of equipment and their previous permit No's are:

Permit/App. No.	Equipment Description	New App No.	Action
F55140/405143	Roll Mill	514856	Inactivate
F55145/405154	Baghouse	514857	Inactivate
F55139/405142	Rubber Mill	514858	Inactivate

The application fees for the 17 applications above have been reviewed and confirmed. The details of the application fees have been documented and can be viewed in the Appendix at the end of this evaluation.

In addition to the 17 applications submitted, Kirkhill was informed that 3 additional applications would be required for change of condition. These applications were submitted on 12-28-2010. The equipment and their application numbers are listed below:

Application No.	Equipment Description	Action
517155	Rubber Mixer	Change of Condition
517157	Roll Mill	Change of Condition
517158	Spray Booth	Change of Condition

The Rubber Mixer and the Roll Mill were mistakenly excluded from the first package of applications. These two pieces of equipment are part of the raw material increase that will increase both PM10 and VOC emission which Kirkhill is requesting as a facility condition. The spray booth application has been submitted to provide a decrease in VOC emission in order to offset the VOC increase from the raw material increase for the rubber manufacturing equipment. The spray booth was originally permitted to emit a VOC emission level that is not currently needed for present day to day operations. The VOC emission level that was granted to the spray booth caused the facility's Regulation XIII VOC threshold level of 4 tons per year to be exceeded and therefore does not allow the facility to add to their VOC NSR account. The company has requested a change of condition for the spray booth permit which will then trigger a concurrent facility modification. The reduction in coating usage from the spray booth will lower the facility's VOC emission level below the Regulation XII threshold level allowing a VOC emission increase from the rubber manufacturing system.

All filing fees have been submitted and are correct for these additional applications.

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PROCESS DESCRIPTION:

The general operation at this facility consist of raw materials (powders and rubber compounds) mixed together in mixers. The resultant mixture is then fed to roller mill and/or calendars. There are currently three (3) mixers at the facility (Devices D12, D21, and D23). The resultant mixture can be sold “as is” or further processed at the plant. The portion that is further processed at the plant is either passed through extruders where the resultant extruded product goes through an oven to cure or the resultant mixture is sent directly to presses for final curing. The cured product is then packaged and shipped off-site to customers. A simplified block diagram of this process can be viewed on Figure 2 in the Appendix. The particulate emission generated from the handling of the powder material and the mixing of the powder material is vented to a Baghouse and the particulate emission generated from the rubber products being cured in the ovens is vented to an Electrostatic Precipitator. The two Baghouses that will be used to receive additional particulate emission are Baghouse (C100 existing) and new Baghouse (C139 relocated). The existing Baghouse (C100) has seven (7) existing basic equipment vented to it with one additional piece of new (relocated) equipment being vented to this Baghouse. The existing and new equipment vented to this Baghouse is listed below:

App No.	Equipment	Device	Status	Control Device
C43480	Hopper	D3	Existing	Baghouse C100
C43480	Bucket Elevator	D6	Existing	Baghouse C100
C43481	Bucket Elevator	D11	Existing	Baghouse C100
C43481	Mixer	D12	Existing	Baghouse C100
00364A	Roll Mill	D20	Existing	Baghouse C100
484289	Hopper	D134	Existing	Baghouse C100
484289	Carbon Black Loader	D137	Existing	Baghouse C100
514856	Black Mill	D138	Relocated/New	Baghouse C100

The existing and new equipment vented to Baghouse C139 (relocated from Kirkhill’s other location) are listed below:

App No.	Equipment	Device	Status	Control Device
514871	Rubber Mill	D25	Existing	Baghouse C139
514870	Mixer	D21	Existing	Baghouse C139
514858	Rubber Mill	D152	Relocated/New	Baghouse C139
514859	Rubber Mill	D141	New	Baghouse C139
514866	Roll Mill	D147	Existing/No Permit	Baghouse C139
514867	Roll Mill	D148	Existing/No Permit	Baghouse C139
514868	Roll Mill	D149	Existing/No Permit	Baghouse C139

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The other modification that is part of this evaluation is the removal of an existing electrostatic precipitator and replacing it with a new electrostatic precipitator. The equipment connected to the previous control was four curing ovens that were not previously permitted. The equipment connected to the new electrostatic precipitator will be the existing four curing ovens and an additional curing oven that was at the facility but was never used in production.

The existing and new equipment vented to the new Electrostatic Precipitator (C150) is listed below:

App No.	Equipment	Device	Status	Control Device
514860	Curing Oven	D142	Existing/No Permit	Electrostatic Prec C150
514861	Curing Oven	D143	Existing/No Permit	Electrostatic Prec C150
514863	Curing Oven	D144	Existing/No Permit	Electrostatic Prec C150
514864	Curing Oven	D145	Existing/No Permit	Electrostatic Prec C150
514865	Curing Oven	D146	New	Electrostatic Prec C150

PARTICULATE AND VOC EMISSION CALCULATIONS:

Average Operating Schedule:	16 hrs/day	5 days/wk	50 wks/yr
Maximum Operating Schedule:	24 hrs/day	7 days/wk	52 wks/yr

Kirkhill has requested to have the daily throughput of material processed increased for equipment that will be vented to C100 and C139. The following throughput values have been proposed for the following equipment:

Equipment Vented to Baghouse C100

Equipment	Device No.	Max material Throughput lbs/year	Rubber Processed lbs/year	Powder Processed lbs/year
Mixer	D12	8,000,000	4,800,000	3,200,000
Mill	D20	200,000 ¹	127,600	72,400
Hopper	D134	1,008,000	0	1,008,000
Loader	D137	1,008,000	0	1,008,000
Black Mill	D138	50,000	9,000	41,000
TOTAL		10,266,000	4,936,600	5,329,400

¹ See email submitted December 9, 2010.

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Equipment Vented to Baghouse C139

Equipment	Device No.	Max material Throughput lbs/year	Rubber Processed lbs/year	Powder Processed lbs/year
Mixer 3A	D21	830,160	449,947	380,213
Silicon Mill 1	D25	536,150	498,620	37,531
Silicon Mill 2	D152	536,150	498,620	37,531
Silicon Mill 3	D141	100,000	93,700	7,000
Mill 1	D147	216,620	196,474	20,146
Mill 2	D148	100,000	18,000	82,000
Mill 3	D149	1,095,000 ¹	1,018,350	76,650
TOTAL		3,414,080	2,773,711	641,071

¹ See email submitted December 9, 2010.

The US EPA, Office of Air Quality Planning and Standards Measurement Policy Group commissioned a study to determine Emission Factors for AP-42, Section 4.12 on the Manufacture of Rubber Products. There were 23 types of rubber products that were identified and assigned emission factors. Of the 23 types of rubber products, Kirkhill identified Compound Batch #18 for a butyl rubber compound as the closest match for the type of rubber product they manufacture. Total particulates will be assumed to be PM and PM10 will be 50% of the PM value. The table below illustrates the emission factors associated with the manufacturing of this particular rubber compound:

Emission	Compound #18 lb/lb rubber	23 Compounds avg. lb/lb rubber	From 23 Compounds max lb/lb rubber
Total VOC			
Mixers	6.05E-05	1.06E-04^a	4.44E-04
Mills		7.68E-05^b	
Total HAP's	4.66E-05	3.9E-05^a	1.40E-04
Total Particulates			
Mixer, Mills	1.92E-04	3.21E-04^a	9.25E-04
Hopper, Loader		9.10E-08^c	
		1.00E-03^d	

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^(a)This emission factor came from AP-42 Section 4.12 on the Manufacture of Rubber Products. Table of 23 rubber compounds for mixing operations. See appendix for table

^(b)This emission factor came from AP-42 Section 4.12 on the Manufacture of Rubber Products. Table of 4 rubber compounds for milling operations. See appendix for table

^(c)This emission factor came from AP-42 for aggregate loading/hopping 11.12 (0.0051 lbs/tons times 5 to adjust for carbon black instead of sand/gravel = 0.026 lbs/ton x 1 ton/2,000 lb/ton x 0.007 (control efficiency of baghouse)

^(d)This emission factor is a District default emission factor used in a variety of District documents to determine PM emission when there is not a specific emission factor for a specific operation. 2 pounds PM per ton of powder material (2 lbs/2000 lb/ton) = 1.00E-03 lbs PM/lb powder.

The emission factor for particulates shown above include the control efficiency of a baghouse venting equipment that have the potential to emit particulate emission. The efficiency of the baghouse used in the EPA study was demonstrated to achieve 99.3% removal.

Particulate Emission Calculation based on Annual Usage:

Comparing the three different emission factors categories, it is reasonable to use the category for the “average” emission factor. The worst case emission factor from the “Max” values of the 23 compounds would over estimate the actual emission while the “Compound” emission factors would be underestimating the actual emission. Using the “average 23 Compounds” gives a good general value that is best representative of what the actual emission would be from the manufacturing process since there are not exact matches between the 23 compounds and what Kirkhill actually manufacturers. The more conservative District PM emission factor will be used to estimate the PM emission from the Hopper and Loader.

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Emission data for equipment venting to Baghouse C100 system;

Equipment	Device No.	Max Throughput material lbs/year	Emission Factor lb VOC/lb material	Emission Factor lb PM/lb material	Emission Factor lb PM10/lb material
Mixer	D12	8,000,000	1.06E-04	3.21E-04	1.60E-04
Mill	D20	200,000	7.68E-05	3.21E-04	1.60E-04
Hopper	D134	1,008,000		1.00E-03	5.00E-04
Loader	D137	1,008,000		1.00E-03	5.00E-04
Black Mill	D138	50,000	7.68E-05	3.21E-04	1.60E-04

Emission data for equipment venting to Baghouse C139 system;

Equipment	Device No.	Max Throughput material lbs/year	Emission Factor lb VOC/lb material	Emission Factor lb PM/lb material	Emission Factor lb PM10/lb material
Mixer 3A	D21	830,160	1.06E-04	3.21E-04	1.60E-04
Silicon Mill 1	D25	536,150	7.68E-05	3.21E-04	1.60E-04
Silicon Mill 2	D152	536,150	7.68E-05	3.21E-04	1.60E-04
Silicon Mill 3	D141	100,000	7.68E-05	3.21E-04	1.60E-04
Mill 1	D147	216,620	7.68E-05	3.21E-04	1.60E-04
Mill 2	D148	100,000	7.68E-05	3.21E-04	1.60E-04
Mill 3	D149	1,095,000	7.68E-05	3.21E-04	1.60E-04

Emission from Equipment vented to Baghouse C100

Equipment	Yearly Emission VOC PM/PM10 pounds		Monthly Emission VOC PM/PM10 pounds		Daily Emission VOC PM/PM10 pounds	
Mixer (D12)	848	2,568/1,284	71	214/107	2.4	7.1/3.5
Mill	15.4	64/32	1.28	5.4/2.70	0.04	0.18/0.090
Hopper		7.1/3.6		0.6/0.3		0.03/0.01
Loader		7.1/3.6		0.6/0.3		0.03/0.01
Black Mill	3.84	16/8	0.32	0.53/0.26	0.01	0.02/0.009
	VOC	PM/PM10	VOC	PM/PM10	VOC	PM/PM10
TOTAL	860	2,662/1,331	72	221/111	2.4	7.4/3.7

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Emission from Equipment vented to Baghouse C139

Equipment	Yearly Emission		Monthly Emission		Daily Emission	
	VOC	PM/PM10	VOC	PM/PM10	VOC	PM/PM10
	pounds		pounds		pounds	
Mixer 3A	88	266/133	7.33	22.2/11.1	0.24	0.74/0.37
Silicon Mill 1	41	172/86	3.4	14.3/7.2	0.11	0.47/0.29
Silicon Mill 2	41	172/86	3.4	14.3/7.2	0.11	0.47/0.29
Silicon Mill 3	7.7	32.1/16	2.7	2.7/1.35	0.09	0.09/0.05
Mill 1	16.6	69.5/35	1.4	5.8/2.9	0.05	0.2/0.1
Mill 2	7.7	32.1/16	2.7	2.7/1.35	0.09	0.09/0.05
Mill 3	67	281/140	5.6	23.4/11.7	0.2	0.78/0.39
	VOC	PM/PM10	VOC	PM/PM10	VOC	PM/PM10
TOTAL	269	1,024/512	22	85/43	0.73	2.8/1.4

Particulate Emission from Curing Ovens (D142 – D146)

There are no published emission factors for PM or PM10 from rubber curing ovens. A conservative approach would be to use the District PM default factor of 2 lbs/ton and 50% of the PM is PM10. Kirkhill has indicated in an email dated January 17, 2011 that the maximum throughput of rubber material going into all five ovens would never exceed 120,000 pounds per year. Therefore, the maximum throughput of rubber material per oven would be 24,000 pounds per year. The company literature submitted by Kirkhill on the control efficiency of the electrostatic precipitator indicated that it would achieve a maximum of 94% at 0.2 microns (see email dated

January 18, 2011 and manufacture brochure in appendix). Therefore, these values will be used in calculating the PM/PM10 emission from each curing oven.

The VOC emission factor that will be used in this evaluation for these curing ovens is from EPA. The EPA factor is 2.94E-03 lb VOC/lb rubber material and comes from the same study mentioned above for the mixer and mills PM calculation (Emission Factors for AP-42, Section 4.12 on the Manufacture of Rubber Products). There were studies done on three different types of curing process for rubber (press mold curing, autoclave curing, and hot air curing). The type of curing that best fits the type of curing taking place in the Kirkhill curing ovens is the "hot air curing". Therefore, the VOC emission factor I will use is from the table developed for products hot air cured. The largest emission factor for the rubbers studied will be used to calculate a conservative VOC emission value from Kirkhill's curing ovens. The table with the emission factors can be found in the appendix.

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PM emission (uncontrolled): $(24,000 \text{ lbs/yr}) \times (2 \text{ lbs}/2000 \text{ lbs}) =$ 24 lbs PM per year per oven
2 lbs PM per month per oven
0.07 lbs PM per day per oven

PM emission (controlled): $24 \text{ lbs/yr} \times (1 - 0.94) =$ 1.44 lbs PM per year per oven
0.12 lbs PM per month per oven
0.004 lbs PM per day per oven

PM10 emission (uncontrolled): $24 \text{ lbs/yr} \times 0.5 =$ 12 lbs PM10 per year per oven
1 lbs PM10 per month per oven
0.035 lbs PM10 per day per oven

PM10 emission (controlled): $1.44 \text{ lbs/yr} \times 0.5 =$ 0.72 lbs PM10 per year per oven
0.06 lbs PM10 per month per oven
0.002 lbs PM10 per day per oven

VOC emission: $2.94\text{E-}03 \text{ lbs VOC/lb rubber} \times 24,000 \text{ lbs/yr} =$ 71 lbs VOC/yr per oven
6 lbs VOC/month per oven
0.2 lbs VOC/day per oven

Emission from Equipment vented to Electrostatic Preceptor C150

Equipment	Yearly Emission VOC PM/PM10 pounds		Monthly Emission VOC PM/PM10 pounds		Daily Emission VOC PM/PM10 pounds	
Oven #1	71	1.44/0.72	6	0.12/0.06	0.2	0.004/0.002
Oven #2	71	1.44/0.72	6	0.12/0.06	0.2	0.004/0.002
Oven #3	71	1.44/0.72	6	0.12/0.06	0.2	0.004/0.002
Oven #4	71	1.44/0.72	6	0.12/0.06	0.2	0.004/0.002
Oven #5	71	1.44/0.72	6	0.12/0.06	0.2	0.004/0.002
	VOC	PM/PM10	VOC	PM/PM10	VOC	PM/PM10
TOTAL	355	7.2/3.6	30	0.60/0.30	1.0	0.020/0.010

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SUMMARY OF VOC EMISSION

	Yearly	Monthly	Daily
Equipment Venting To C100	860 lbs	72 lbs	2.4 lbs
Equipment Venting To C139	269 lbs	22 lbs	0.73 lbs
Curing Ovens	355 lbs	30 lbs	1.0 lbs
Total Emission	1,484 lbs VOC	124 lbs VOC	4.13 lbs VOC

SUMMARY OF PM10 EMISSION

	Yearly	Monthly	Daily
Equipment Venting To C100	1,331 lbs	111 lbs	3.7 lbs
Equipment Venting To C139	512 lbs	43 lbs	1.4 lbs
Curing Oven	3.6 lbs	0.30 lbs	0.010 lbs
Total Emission	1,847 lbs	154 lbs	5.1 lbs

SPRAY BOOTH VOC EMISSION CALCULATION

Currently the spray booth (Device D50) on Kirkhill's facility permit has a permitted potential to emit of 29 pounds of VOC per day or 10,585 pounds per year.

Kirkhill has reviewed their coating usage through this spray booth for the previous four years to determine their maximum usage. Their usage logs indicate that 120 gallons was the maximum usage of coating for a year during this four year period. Therefore, Kirkhill has requested that their new limit for coating usage be 360 gallons per year to allow for any increase of production in future years.

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The following VOC emission level from this spray booth will be based on a maximum usage of 360 gallons per year or 30 gallons per month or 1 gallon per day.

The emission factor that will be used to calculate VOC emission from this spray booth will be based on the worst case scenario that comes from the two District Rules that this spray booth is subject to (Rule 1145 and 1124).

Based on the type of coatings that Kirkhill uses for the coating of their rubber based ground as well as aircraft and space parts, the maximum VOC limit for these types of coating under Rule 1145 and 1124 is 805 g/liter. Therefore, this emission limit will be used as the factor for determining the new emission from this spray booth.

VOC (pte) = (30 gal/month) x (3.785 liters/gal) x 805 g/l x 1 lb/453.59 grams

VOC = 202 lbs/month

VOC (30 day average) 202 lb/month / 30 days = 6.7 lbs/day

RULE EVALUATION:

Rule 212: Standards for Approving Permits –

- (c)(1) The closest school to this facility is Brea Junior High School located at 321 E Chapman Ave, Fullerton, CA which is 0.16 miles from the facility. The distant in feet is (0.16 mi) x (5,280 ft/mi) = 845 feet. Since this is **less than 1000 feet**, a public notice **is** required. A map and printout of the closest K12 schools near this location is shown in the Appendix.
- (c)(2) This facility will **NOT** have on-site emission increases exceeding any of the daily maximums specified in subdivision (g) of this rule. Those limits are:

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Air Contaminant	Daily Maximum in lbs per Day
Volatile Organic Compounds	30
Nitrogen Oxides	40
PM ₁₀	30
Sulfur Dioxide	60
Carbon Monoxide	220
Lead	3

(c)(3)(A)(i) This facility **will** have an increase in emissions of toxic air contaminants.

Rule 401: **Visible Emissions** - With proper operation of all the equipment that is vented to Baghouse C100 and Baghouse C139, the baghouses should be adequate to control particulates so that there are no visible emissions.

Rule 402 **Public Nuisance** – Upon review of the District Compliance information, the last inspection at this facility was in June of 2010. There were no reported incidences of nuisance complaints from neighboring occupants for this facility in the history of the inspection reports. The proper operation of the control equipment at this facility should provide adequate protection from any particles or odors causing a nuisance.

Rule 404 **Particulate Matter Concentration** – This rule limits particulate matter discharges into the atmosphere to specified amounts, depending upon the volume of air discharged. At the design rate of 26,000 and 10,000 dry standard cubic feet per minute (dscfm) for baghouse C139 and C100 respectively, the baghouses shall not emit more than 0.0147 and 0.08 grains per dscfm respectively. At a maximum emission rate of 0.12 pounds per hour and 0.30 pounds per hour, this amounts to 0.00054 grains per dscfm and 0.0035 grains per dscfm respectively for the Baghouses. Thus, this equipment will comply with Rule 404.

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From Baghouse C100

$$C = \frac{R_2 \times 7000 \frac{\text{grains}}{\text{lb}}}{VFR \times 60 \frac{\text{min.}}{\text{hr.}}}$$

Where: C= PM concentration (grains/ft³)
R₂ = Controlled PM emission rate = 0.30 lb/hr
(7.2 lbs/day/24 hr = 0.30 lb/hr)
VFR= Exhaust air flow-rate = 10,000 cfm

$$C = \frac{0.30 \frac{\text{lb}}{\text{hr}} \times 7000 \frac{\text{grains}}{\text{lb}}}{10,000 \frac{\text{ft}^3}{\text{min.}} \times 60 \frac{\text{min.}}{\text{hr.}}} = \mathbf{0.0035} \text{ grains / ft}^3$$

From Baghouse C139

$$C = \frac{R_2 \times 7000 \frac{\text{grains}}{\text{lb}}}{VFR \times 60 \frac{\text{min.}}{\text{hr.}}}$$

Where: C= PM concentration (grains/ft³)
R₂ = Controlled PM emission rate = 0.12 lb/hr
(2.8 lbs/day/24 hrs = 0.12 lb/hr)
VFR= Exhaust air flow-rate = 26,000 cfm

$$C = \frac{0.12 \frac{\text{lb}}{\text{hr}} \times 7000 \frac{\text{grains}}{\text{lb}}}{26,000 \frac{\text{ft}^3}{\text{min.}} \times 60 \frac{\text{min.}}{\text{hr.}}} = \mathbf{0.00054} \text{ grains / ft}^3$$

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Rule 405 Solid Particulate Matter – Weight – This rule limits particulate matter discharges into the atmosphere to specified amounts, depending upon the amount of material handled. At the projected process rate of 1,070 pounds of powder per hour and 123.5 pounds of powder per hour going into equipment vented to Baghouse C100 and C139 respectively, the maximum allowed particulate discharge from these Baghouses is 2.63 pounds per hour and 0.99 pounds per hour, respectively (these values taken from Table 405a in Rule 405).

C100 5,293,200 lb/yr/365 days/yr/24 hrs/day = 604 lbs/hr

C139 625,741 lb/yr/365 days/yr/24hrs/day = 71 lbs/hr

At the maximum emission rate of 0.75 pounds per hour, and 0.019 pounds per hour from C100 and C139 respectively, this equipment will comply with Rule 405.

	Limit	Actual	Rule Compliance
C100	1.88 lb/hr	0.30 lb/hr	Yes
C139	0.99 lb/hr	0.12 lb/hr	Yes

Rule 481 Spray Coating Operations – The company has indicated that they ONLY use spray coating equipment using HVLP, electrostatic and/or airless spray equipment as required by the rule. Therefore compliance with this rule is achieved.

Rule 1171 Solvent Cleaning Operations – The company has indicated that they will clean surface coating application equipment using materials meeting the requirements of this rule including the VOC limit of 25 g/l. The materials will be stored in non-absorbent, non-leaking containers that are kept closed when not in use.

Rule 1124 Aerospace Assembly and Component Manufacturing Operations – The facility has indicated that they use ONLY HVLP spray equipment in the spray booth and that the coatings applied to the aerospace components are in compliance with the VOC limits of this rule.

Rule 1145 Plastic, Rubber, and Glass Coatings - The facility has indicated that they use ONLY HVLP spray equipment in the spray booth and that the coatings applied to the aerospace components are in compliance with the VOC limits of this rule.

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Rule 1155

Particulate Matter (PM) Control Devices - The purpose of this rule is to establish requirements for permitted particulate matter (PM) air pollution control devices, including, but not limited to, baghouses, high efficiency particulate air (HEPA) systems, bin vents, or other dust collectors using high efficiency or other air filters, cyclones, electrostatic precipitators, and wet scrubbers.

This rule has requirements for three specific categories: Tier 1, Tier 2 and Tier 3 equipment. Tier 1 includes a baghouse with a total filter area of 500 sq. ft. or less. Tier 2 includes a baghouse with a total filter area of between 500 sq. ft. and 7,500 sq. ft. Tier 3 includes a baghouse with a total filter area of 7,500 sq. ft. and greater.

Kirkhill has the following equipment in this evaluation that is subject to the requirement of this rule. The equipment is:

Equipment	Total Filter Area	Tier Requirement
Baghouse C100-	10,000 sq. ft.	Tier 3
Baghouse C139	3,079 sq. ft.	Tier 2
Smog Hog C150 (ESP)	n/a	Other

A summary sheet explaining the requirements for each tier level is shown in the appendix at the end of this evaluation. A summary of compliance for equipment listed above is shown below:

Baghouse C100 – This equipment is required to meet an emission limit of 0.01 gr/dscf. As indicated in Rule 404 above, this equipment is calculated at emitting 0.0035 gr/dscf. Therefore, it is in compliance with this requirement. This equipment is also required to have installed a “Bag Leak Detention System” BLDS. The company submitted an application on 3/23/10 for the installation of a BLDS on this equipment. This application has yet to be completed by the District’s staff. Until the application is approved and a modification permit is issued, the operator is required to conduct a “once a week” visible emission inspection along with recordkeeping. And lastly, the operator shall conduct a source test, if they are Title V facility, prior to January 1, 2011 to verify compliance with the 0.01 gr/dscf emission limit. As of this date, the company has complied with all the requirements of this rule and is in compliance.

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Baghouse C139 – This equipment is classified as Tier 2 and therefore is required to have a once a weekly visible inspection of its exhaust. Records of the inspection are required to be kept for a period of five years. The company has indicated that inspections are being conducted and compliance with this rule is being achieved.

Smog Hog C150 (ESP) – This equipment is under “other” in the Summary of Requirements in Rule 1155. The requirement for this equipment is the same as it is for Tier 1 and Tier 2 equipment which is the once a week visible emission inspection along with the five year record keeping requirement. The company has indicated that this monitoring and record keeping is being done and therefore, compliance with this rule is expected.

In addition to the compliance of this equipment to this rule, a permit condition will be added to each of this equipment to indicate in the permit that each equipment is subject to Rule 1155.

Reg XIII: New Source Review - 1303 - BACT

(a) Best Available Control Technology (BACT):

(1) The Executive Officer or designee shall deny the Permit to Construct for any relocation or for any new or modified source which results in an emission increase of any nonattainment air contaminant, any ozone depleting compound, or ammonia, unless BACT is employed for the new or relocated source or for the actual modification to an existing source.

The equipment in this evaluation that is **NOT** subject to BACT analysis is the spray booth and the curing ovens. The spray booth has a VOC emission decrease as a result of the change of condition and the ovens will emit less than one pound of PM10 per day based on a daily material usage condition on their permit. This criterion removes the equipment from further analysis of BACT.

Oven Emission and Permit Condition:

From the emission calculation section:

Equipment	Daily Emission Pounds per day VOC
Oven #1	0.2
Oven #2	0.2
Oven #3	0.2
Oven #4	0.2
Oven #5	0.2
	1.0 lb/day VOC

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The cumulative VOC emission from this project is one pound per day. Daily emission from equipment that exceed one pound per day is subject to BACT. The company has elected to take a "Permit Condition" on the oven permits that would restrict the combined material use per day to the following limit:

$$(1 \text{ lb/day}) \times (2.94\text{E-}03 \text{ lbs VOC/lb material}) = 340 \text{ lbs/day}$$

Therefore, a combined daily limit of 340 pounds per day of material for the five ovens will be imposed in order for this equipment to not be subject to a BACT requirement.

Equipment in this evaluation that **IS** subject to BACT analysis is the

Roll Mills,
Rubber Mills, and
Mixer.

The current BACT guideline for this equipment is shown below:

Equipment or Process: Mixer, Blender or Mill

Subcategory/ Rating/Size	Criteria Pollutants					Inorganic
	VOC	NOx	SOx	CO	PM ₁₀	
Dry					Baghouse (07-11-97)	
Wet	Carbon Adsorber; or Refrigerated Condenser; or Afterburner (VOC Emissions Only); or Vapor Recovery (07-11-97)				Baghouse if Dry Ingredients are Added (07-11-97)	Packed Column Scrubber (07-11-97)

The subcategory for the roll mills, rubber mills and mixers is "Dry". All of the roll mills, rubber mills and mixers in this evaluation are vented to either the C100 or the C139 Baghouse, thus compliance with BACT is achieved for the PM10 category.

Other equipment in this evaluation that **IS** subject to BACT analysis is the Hopper and the Loader.

The current BACT guideline for this equipment is shown below:

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**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities***

10-20-2000 Rev. 0

Equipment or Process:

Bulk Solid Material Handling – Other

Subcategory ³⁾ /Rating/Size	Criteria Pollutants					Inorganic
	VOC	NOx	SOx	CO	PM10	
Animal Feed Mfg. – Dry Material Handling					Baghouse (07-11-97)	
Clay, Ceramics and Refractories Handling (Except Mixing)					Baghouse (1988)	
Coal, Coke and Sulfur Handling					Compliance with AQMD Rule 1158 (10-20-2000)	
Feed and Grain Handling					Baghouse (1988)	
Natural Fertilizer Handling ¹⁾					Baghouse or Equivalent Material Moisture (07-11-97)	
Paper and Fiber Handling					High Efficiency Cyclone with Baghouse (10-20-2000)	
Pneumatic Conveying, Except Paper and Fiber					Baghouse (1988)	
Railcar Dumper					Enclosed Dump Station and Water Spray for Wet Material (1988)	
Other Dry Materials Handling ²⁾					Enclosed Conveyors and Baghouse (7-11-97)	
Other Wet Materials Handling ²⁾					Water Spray or Adequate Material Moisture (1988)	

1. Includes conveying, size reduction, classification and packaging.

2. Includes conveying, size reduction and classification.

3. Also see Catalyst Manufacturing, Coffee Roasting, Non-Metallic Mineral Processing, Nut Roasting, Rendering, Pharmaceutical Operations, and Rock-Aggregate Processing for other bulk solid material handling.

* Means those facilities that are not major polluting facilities as defined by Rule 1302 - Definitions

BACT Guidelines - Part D

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Bulk Solid Material Handling – Other

The category for the Hopper and Loader will be “Other Dry Materials Handling” and therefore, the BACT guidelines indicate Enclosed Conveyors and Baghouse is BACT. The Hopper is enclosed and the Loader uses super sacks which can also be considered enclosed to comply with the first part. The Hopper and Loader are also vented to a Baghouse which satisfies the second part of BACT. Therefore, there is no need to do an analysis to see if there is an emission increase between the PM10 emission prior to the modification and the PM10 emission after the modification. This equipment already satisfies BACT requirement.

To evaluate BACT for the VOC emission category each source or equipment must be evaluated separately. The table below indicates the VOC emission level for each piece of equipment on a daily basis to determine if it is subject to BACT (VOC emission greater than 1 lb/day) based on material throughput:

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VOC daily emission level per source for BACT determination

Equipment	Throughput Lb/year	VOC emission factor Lb VOC / throughput	Emission Lb/day
Mixer (D12)	8,000,000 pounds	1.06 x 10E-04	2.36
Mill (D20)	200,000 pounds	1.06 x 10E-04	0.06
Mixer (D21)	830,160 pounds	1.06 x 10E-04	0.24
Rubber Mill (D25)	536,150 pounds	7.68 x 10E-05	0.11
Mill Silicone 1 (D152)	536,150 pounds	7.68 x 10E-05	0.11
Mill Silicone 2 (D141)	100,000 pounds	7.68 x 10E-05	0.02
Mill 1 (D147)	216,620 pounds	7.68 x 10E-05	0.05
Mill 2 (D148)	100,000 pounds	7.68 x 10E-05	0.02
Roll Mill (D149)	1,095,000 pounds	7.68 x 10E-05	0.23
Oven #1	24,000 pounds	2.94 x 10E-03	0.20
Oven #2	24,000 pounds	2.94 x 10E-03	0.20
Oven #3	24,000 pounds	2.94 x 10E-03	0.20
Oven #4	24,000 pounds	2.94 x 10E-03	0.20
Oven #5	24,000 pounds	2.94 x 10E-03	0.20

The only source above that is greater than one pound per day of VOC emission is the Mixer (D12). Since this equipment is being evaluated for a modification, the rule requires the emission increase to be calculated based on the difference between the emission before modification and after the modification. Looking at the previous engineering evaluation for D12 (Application No. C43481) indicates the VOC emission level for New Source Review in 1983 was 0 lbs/day. It is possible that at the time this equipment was evaluated, the processing engineer did not believe that the mixing of rubber released any VOC emission and therefore did not include it in their evaluation. To determine the past VOC emission level from this equipment, we can look at the last two years of throughput data and apply the current VOC emission factor.

In an email dated October 5th, 2010 indicated that this mixer D12 processed 5,800,000 pounds of material for the year 2009 and that this was a slow year. If we assumed that the average amount of material that was processed through D12 was 6,000,000 pounds for the last two years this would be a very conservative estimate since 2008 was probably much higher than the average. Therefore, the yearly VOC emission from this equipment for the last two years would be approximately:

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Mixer (D12) VOC Emission:

Prior to Modification: 0.000106 lbs VOC/lb mat x 6,000,000 lb mat = 636 lbsVOC/yr

After Modification: 0.000106 lbs VOC/lb mat x 8,000,000 lb mat = 848 lbs VOC/yr

Mixer (D12) VOC Emission Increase:

$(848 \text{ lbs/yr} - 636 \text{ lbs/yr}) / (12 \text{ month/yr} \times 30 \text{ days/month}) = \mathbf{0.59 \text{ lbs VOC/day}}$

The VOC emission increase from this modification is less than one pound per day, therefore BACT is **NOT** triggered for VOC from this source. To ensure that this equipment will not exceed the daily VOC emission limit of one pound per day increase from this modification, a permit condition will be imposed to limit the daily throughput of material to the following level:

From emission calculation section:

$(8,000,000 \text{ lbs/year material}) / (12 \text{ months/year}) / (30 \text{ days/month}) = \mathbf{22,222 \text{ lbs/day}}$

Therefore, a permit condition will be imposed on Device D12 to read the following:

This equipment shall not process more than 22,222 lbs of material in any one day.

New Source Review - 1303 - Offsets

(b) The Executive Officer or designee shall, except as Rule 1304 applies, deny the Permit to Construct for any new or modified source which results in a net emission increase of any nonattainment air contaminant at a facility, unless each of the following requirements is met:

(2) Emission Offsets

(A) Emission Reduction Credits

Unless exempt from offsets requirements pursuant to Rule 1304, emission increases shall be offset by either Emission Reduction Credits approved pursuant to Rule 1309, or by allocations from the Priority Reserve in accordance with the provisions of Rule 1309.1, or allocations from the Offset Budget in accordance with the provisions of Rule 1309.2. Offset ratios shall be 1.2-to-1.0 for Emission Reduction Credits and 1.0-to-1.0 for allocations from the Priority Reserve, except for facilities not located in the South

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Coast Air Basin (SOCAB), where the offset ratio for Emission Reduction Credits only shall be 1.2-to-1.0 for VOC, NOX, SOX and PM10 and 1.0-to-1.0 for CO.

The current potential to emit (PTE) for Kirkhill –TA for PM10 and ROG emission prior to the submission of the above applications is shown in the Table A below and in a printout in the Appendix at the end of this evaluation:

TABLE A
Potential to Emit (30 day average (lbs/day))

PM10	15.48
ROG	30

The table below indicates the equipment that is associated with the ROG emission that has generated the total Potential to Emit value for NSR.

Current NSR - ROG Emission Summary

Application No.	Equipment	Device No.	NSR entry
Equipment			
173613	Spray Booth	D50	29 lbs
223694	Boiler	D1	1 lbs
TOTAL			30 lbs

Since the company has exceeded their 4 ton per year threshold level for ROG (Rule 1304), any increase of ROG emission from a new or modified source would require offsets. **The ROG emission increase for Device D12 of 0.59 pounds will require “offset” before a permit to construct/operate can be issued. This value is multiplied by an offset factor of 1.2 to become 0.70 pounds to determine the final offset required as stated in Rule 1303. This value represents the emission increase due to the difference in material throughput from the pre operating condition to the post operating condition. This value was calculated in the previous NSR section for BACT analysis. Therefore, it will not be recalculated in this section.**

The ROG emission increase due to the operation of the five curing ovens will be one pound per day (30 day average) and has been calculated in the emission calculation section of this evaluation.

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Instead of purchasing emission reduction credits (ERC's) to mitigate the ROG increase from Device D12 and the curing ovens, the company has elected to submit an application for Device D50 (spray booth) to impose an operating condition that would allow the spray booth to emit 6.7 pounds of ROG emission per day (based on a 30 day average) instead of the permitted 29 pounds. The new VOC NSR balance for Kirkhill as shown below is 9.4 pounds which is generated from D50 (spray booth), D1 (boiler) and D12 (mixer), and the five curing ovens (D142, D143, D144, D145 and D146). Only one curing oven will be used to input the NSR value, since this is a project emission calculation. Inputting each curing oven VOC emission of 0.2 pounds would not be recognized by the NSR District module, therefore, a single value of 1.0 pounds per day is recognized and will produce a correct NSR value for the facility balance.

New NSR - ROG Emission Summary

Application No.	Equipment	Device No.	old NSR	new NSR
Equipment				
173613 (old)	Spray Booth	D50	29 lbs	
525123 (new)	Spray Booth	D50		+6.7 lbs
223694	Boiler	D1	+1 lb	+1.0 lb
514860	Curing Oven	D142		+1.0 lb
517155	Mixer	D12		+0.7 lbs
TOTAL			30 lbs	+9.4 lbs

Therefore, the change of condition (concurrent facility modification) to D50 has allowed the company to increase its ROG emission from D12 and the curing ovens without the purchase of ERC's. The company has maintained their NSR balance below the threshold of 4 tons per year and therefore is in compliance with the offset rule for ROG emission.

For PM10 emission, the company has requested a throughput condition on their equipment that would take their PM10 NSR account up to the maximum (4 tons per year). To insure that their present NSR balance was correct an analysis was conducted on each piece of equipment that contributed to the current balance to make sure there were no errors from past evaluations. The table below summarizes the PM10 emission that is associated with each source and the control equipment that make up the final NSR total.

Below is a list of the application No.s, their device no., and the corresponding NSR emission:

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Current NSR - PM10 Emission Summary

Application No.	Equipment	Device No.	NSR entry
Equipment			
06581A	Oven	D55	2 lbs
08166A	Oven	D41	6 lbs
09766A	Oven	D58	1 lb
09767A	Oven	D57	1 lb
118013	Oven	D33	42 lbs
118015	Oven	D65	2 lbs
142262	Oven	D59	1 lb
223694	Boiler	D1	1 lb
260667	Boiler	D2	1 lb
436876	Oven	D128	1 lb
469751	Oven	D59	1 lb
C43480	Conveying	D3-Dd10	1 lb
C43481	Mixer	D12	5 lbs
TOTAL			65 lbs
Control Equipment			
09881	Scrubber	C61	-11 lbs
11014	ESP	C35	-37 lbs
138768	ESP	C66	-1 lbs
TOTAL			-49 lbs

Current PM10 NSR Account

16 lbs

The above analysis shows that the company has 16 pounds of PM10 emission as their balance. This balance leaves the company with 6 pounds of PM10 emission as a potential increase before they reach their 4 ton per year (22 pounds per month) threshold and would have to provide offset.

The increase in material throughput and the corresponding emission calculation for PM10 from the "Emission Calculation Section" indicates that the ONLY source that has a potential to emit more than 1 pound per day of PM10 is Mixer D12. The PM10 emission level from this source is 3.5 pounds per day based on the new material throughput limit. The PM10 emission prior to the new level was 80% of the 3.5 pounds or 2.8 pounds of PM10 per day, the difference being 0.7 pounds per day. This INCREASE of 0.7 pounds per day is the amount subject to offset and because it is greater than 0.5 pounds per day, this increase is subject to 1 pound of PM10 offset. Adding the 1 lb of PM10 to the NSR balance of 16 for a grand total of 17 pounds of PM10. This value is below the 4 ton per year threshold value (22 pounds per day) and therefore no external offset is required.

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Therefore, the issuance of permits for the applications under this evaluation will be in compliance with the rule for PM10 emission.

New NSR – PM10 Emission Summary

Application No.	Equipment	Device No.	NSR entry
Equipment			
Existing	Various		16 lbs
517155	Mixer	D12	+1.0lbs
TOTAL			17.0 lbs

Rule 1401 – New Source Review of Toxic Air Contaminants

(d) Requirements

The requirements of paragraphs (d)(2) and (d)(3) shall become effective September 8, 1998. The Executive Officer shall deny the permit to construct a new, relocated or modified permit unit if emissions of any toxic air contaminant listed in Table I may occur, unless the applicant has substantiated to the satisfaction of the Executive Officer all of the following:

(1) MICR and Cancer Burden

The cumulative increase in MICR which is the sum of the calculated MICR values for all toxic air contaminants emitted from the new, relocated or modified permit unit will not result in any of the following:

- (A) an increased MICR greater than one in one million (1.0×10^{-6}) at any receptor location, if the permit unit is constructed without T-BACT;
- (B) an increased MICR greater than ten in one million (1.0×10^{-5}) at any receptor location, if the permit unit is constructed with T-BACT;
- (C) a cancer burden greater than 0.5.

(2) Chronic Hazard Index

The cumulative increase in total chronic HI for any target organ system due to total emissions from the new, relocated or modified permit unit owned or operated by the applicant for which applications were deemed complete on or after the date when the risk value for the compound is finalized by OEHHA, unless paragraph (e)(3) applies, will not exceed 1.0 at any receptor location.

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(3) Acute Hazard Index

The cumulative increase in total acute HI for any target organ system due to total emissions from the new, relocated or modified permit unit owned or operated by the applicant for which applications were deemed complete on or after the date when the risk value for the compound is finalized by OEHHA, unless paragraph (e)(3) applies, will not exceed 1.0 at any receptor location.

The applicant has indicated (see email dated December 9, 2010) that from a review of their MSDS sheets of the materials that they use in the mixers and mills, the 1401 compounds listed below are the only ones to be evaluated.

The company has indicated that the rubber material that is processed in the curing ovens do NOT contain any 1401 compounds and thus will not be evaluated under this rule (see email dated January 17, 2011 in the appendix).

Included is the emission factor of each compound. The maximum emission factor between the mixing and milling tables was used for each compound. The compounds that don't have an emission factor in the mixing or milling tables, a default emission will be used which will be the largest factor in the list (ie. 1.57E-05 lb/lb material)

1401 Compound

Emission Factor

Acrylonitrile (vinyl cyanide)	3.99E-06 lb/lb material
Bis(2-ethylhexyl) phthalate	2.51E-07 lb/lb material
Cadmium and cadmium compound	2.49E-09 lb/lb material
Carbontetrachloride	1.57E-05 lb/lb material
Chloroprene **	
Ethylene Thiourea	Default (1.57E-05 lb/lb material)
Lead chromate	1.97E-08 lb/lb material
Nickel	3.89E-08 lb/lb material
Zinc*	

*Compounds not classified as carcinogenic, but have chronic risk values proposed by OEHHA that have not yet been finalized. The effective date is the date the Scientific Review Panel approves the chronic risk value, unless paragraph (e)(3) applies. Paragraph (e)(3) applies when the finalized chronic risk value differs from the value in the latest version of the Risk Assessment Procedures published pursuant to paragraph (e)(1).

** Compounds are classified as carcinogenic, but have chronic risk values proposed by OEHHA that have not yet been finalized. The effective date for use of chronic risk values is the date the Scientific Review Panel approves the chronic risk value, unless paragraph (e)(3) applies.

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To determine the cumulative increase for the MICR, Chronic HI, and Acute HI the following information is needed:

1. Point or Volume Source
2. Stack Height (Baghouse C100 and C139)
3. Distance Residential (Baghouse C100 and C139)
4. Distance Commercial (Baghouse C100 and C139)
5. Meteorological Station
6. Lb/hr of each 1401 compound for each source

DATA:

1. This is a point source since each source is vented to a baghouse and that baghouse has a stack
2. The stack height of Baghouse C100 is: 22 feet
3. The stack height of Baghouse C139 is: 40 feet
4. Distance Residential Baghouse C100 is: 100 m
5. Distance Commercial Baghouse C100 is: 80 m
6. Distance Residential Baghouse C139 is: 250 m
7. Distance Commercial Baghouse C139 is: 80 m
8. The closest meteorological station is: La Habra
9. Lb/hr increase of each compound is shown in the tables below:

Below is the calculated emission increase for each compound from each permit emission source. These values are then used in the 1401 screening risk analysis to determine if the risk is acceptable.

Mill D20

1401 Compounds	Material Increase	x	EF lb/lb	=	Emssion Increase
Bis(2-ethylhexyl) phthalate	8.34 lbs/hr	x	2.51E-06	=	2.1E-05 lb/hr
Cadmium	8.34 lbs/hr	x	2.49E-09	=	2.1E-08 lb/hr
Carbon tetrachloride	8.34 lbs/hr	x	1.57E-05	=	1.3E-04 lb/hr
Chloroprene	n/a				
Ethylene thiourea	8.34 lbs/hr	x	1.57E-05	=	1.3E-04 lb/hr
Zinc	n/a				

The 1401 risk analysis for the increase and compounds listed above are shown in the Appendix.

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The results indicate that this source passes the Tier 1 analysis.

Mixer D12

1401 Compounds	Material Increase	x	EF lb/lb	=	Emssion Increase
Bis(2-ethylhexyl) phthalate	228 lbs/hr	x	2.51E-06	=	5.7E-04 lb/hr
Cadmium	228 lbs/hr	x	2.49E-09	=	5.7E-07 lb/hr
Carbon tetrachloride	228 lbs/hr	x	1.57E-05	=	3.6E-03 lb/hr
Chloroprene	n/a				
Ethylene thiourea	228 lbs/hr	x	1.57E-05	=	3.6E-03 lb/hr
Zinc	n/a				

The 1401 risk analysis for the increase and compounds listed above are shown in the Appendix.

The results for the Tier 1 and Tier 2 analysis failed. The results for the Tier 3 analysis indicated it passed.

Mill D138

1401 Compounds	Material Increase	x	EF lb/lb	=	Emssion Increase
Nickel	5.7 lbs/hr	x	3.89E-08	=	2.2-E07 lb/hr

The 1401 risk analysis for the increase and compounds listed above are shown in the Appendix.

The results indicate that this source passes the Tier 1 analysis.

Mixer 3A D21

For the following source prior historical usage data was not available, so the maximum usage was used to calculation the 1401 risk analysis.

1401 Compounds	Material Increase	x	EF lb/lb	=	Emssion Increase
Bis(2-ethylhexyl) phthalate	95 lbs/hr	x	2.51E-06	=	2.1E-04 lb/hr
Cadmium	95 lbs/hr	x	2.49E-09	=	2.4E-07 lb/hr
Chloroprene	n/a				
Ethylene thiourea	95 lbs/hr	x	1.57E-05	=	1.5E-03 lb/hr
Zinc	n/a				

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The 1401 risk analysis for the increase and compounds listed above are shown in the Appendix.

The results for the Tier 1 analysis failed. The results for the Tier 2 analysis indicated it passed.

Silicon Mill No. 1 D25

For the following source prior historical usage data was not available, so the maximum usage was used to calculation the 1401 risk analysis.

1401 Compounds	Material Increase	x	EF lb/lb	=	Emssion Increase
Lead chromate	61 lbs/hr	x	1.97E-08	=	1.2E-06 lb/hr
Zinc	n/a				

The 1401 risk analysis for the increase and compounds listed above are shown in the Appendix.

The results for the Tier 1 analysis failed. The results for the Tier 2 analysis indicated it passed.

Silicon Mill No. 2 D152

For the following source prior historical usage data was not available, so the maximum usage was used to calculation the 1401 risk analysis.

1401 Compounds	Material Increase	x	EF lb/lb	=	Emssion Increase
Lead chromate	61 lbs/hr	x	1.97E-08	=	1.2E-06 lb/hr
Zinc	n/a				

The 1401 risk analysis for the increase and compounds listed above are shown in the Appendix.

The results for the Tier 1 analysis failed. The results for the Tier 2 analysis indicated it passed.

Silicon Mill No. 3 D141

For the following source prior historical usage data was not available, so the maximum usage was used to calculation the 1401 risk analysis.

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1401 Compounds Material Increase x EF lb/lb = Emssion Increase

Zinc n/a

This source does not warrant a 1401 analysis since it only emits zinc which factors have not been established.

Mill No. 1 D147

For the following source prior historical usage data was not available, so the maximum usage was used to calculation the 1401 risk analysis.

1401 Compounds Material Increase x EF lb/lb = Emssion Increase

Zinc n/a

This source does not warrant a 1401 analysis since it only emits zinc which factors have not been established.

Mill No. 2 D148

For the following source prior historical usage data was not available, so the maximum usage was used to calculation the 1401 risk analysis.

1401 Compounds Material Increase x EF lb/lb = Emssion Increase

Nickel 11.4 lbs/hr x 3.89E-08 = 4.4-E07 lb/hr

The 1401 risk analysis for the increase and compounds listed above are shown in the Appendix.

The results indicate that this source passes the Tier 1 analysis.

Mill No. 3 D149

For the following source prior historical usage data was not available, so the maximum usage was used to calculation the 1401 risk analysis.

1401 Compounds Material Increase x EF lb/lb = Emssion Increase

Ethylene thiourea 125 lbs/hr x 1.57E-05 = 2.0E-03 lb/hr
Zinc n/a

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The 1401 risk analysis for the increase and compounds listed above are shown in the Appendix.

The results for the Tier 1 analysis failed. The results for the Tier 2 analysis indicated it passed.

SUMMARY OF 1401 ANALYSIS FOR EACH SOURCE

Equipment	1401 Risk Analysis Results
Mill D20	Passed Tier I
Mixer D12	Failed Tier I & II, Passed Tier III
Mill D138	Passed Tier I
Mixer 3A D21	Failed Tier I, Passed Tier II
Silicon Mill D25	Failed Tier I, Passed Tier II
Silicon Mill D152	Failed Tier I, Passed Tier II
Silicon Mill D141	Analysis not needed
Mill No. 1 D147	Analysis not needed
Mill No. 2 D148	Passed Tier I
Mill No. 3 D149	Failed Tier I, Passed Tier II

A permit condition will be generated to limit the above equipment to only use the compounds that this evaluation was conducted under. Therefore, condition B 163.2 will be added to the facility permit for the above equipment for compliance with this rule.

Reg XX: **RECLAIM - NEW SOURCE REVIEW** - This facility is subject to the NO_x RECLAIM program. The new construction, relocation, existing, and modified equipment will not result in an emission increase of NO_x. Therefore, this equipment is in compliance with this rule.

Reg XXX: **TITLE V PERMITS** - This facility is subject to Title V program. The company was issued their Title V permit on 5/23/2000 (Application No. 332659). The company submitted a Title V permit renewal application on 3/29/2005 (Application No. 441990). The Title V permit renewal application has not been completed. The installation of this equipment will result in a "de minimis significant" permit revision. If a Title V permit revision is de minimis significant, the permit holder is required to submit the revision for a 45 day review by EPA.

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CONCLUSIONS/RECOMMENDATIONS

As a result of evaluating each application for compliance with District Rules and Regulations the following recommendation is:

1. Issue a Permit to Operate to Application No. 517155 (rubber mixer) for a change of condition to increase material throughput.
2. Issue a Permit to Operate to Application No. 517157 (rubber roll mill) for a change of condition to increase material throughput.
3. Issue a Permit to Construct/Operate to Application No. 514856 (rubber mill) for change of location.
4. Issue a Permit to Construct/Operate to Application No. 514857 (baghouse) for change of location.
5. Issue a Permit to Construct/Operate to Application No. 514858 (rubber mill) for change of location.
6. Issue a Permit to Operate to Application No. 514859 (rubber mill) for change of location.
7. Issue a Permit to Operate to Application No. 517158 (spray booth) for a change of condition to reduce coating usage on rubber products.
8. Issue a Permit to Operate to Application No. 514860 (curing oven) for equipment operating without a permit.
9. Issue a Permit to Operate to Application No. 514861 (curing oven) for equipment operating without a permit.
10. Issue a Permit to Operate to Application No. 514863 (curing oven) for equipment operating without a permit.
11. Issue a Permit to Operate to Application No. 514864 (curing oven) for equipment operating without a permit.
12. Issue a Permit to Construct/Operate to Application No. 514865 (curing oven) for new construction.
13. Issue a Permit to Construct/Operate to Application N. 514866 (rubber mill) for new construction.
14. Issue a Permit to Construct/Operate to Application N. 514867 (rubber mill) for new construction.
15. Issue a Permit to Construct/Operate to Application N. 514868 (rubber mill) for new construction.
16. Issue a Permit to Construct/Operate to Application No. 514869 (baghouse) for a modification.
17. Issue a Permit to Construct/Operate to Application No. 514870 (rubber mixer) for a modification.
18. Issue a Permit to Construct/Operate to Application No. 514871 (rubber mill) for a modification.
19. Issue a Permit to Construct/Operate to Application No. 514872 (electrostatic precipitator) for new construction.
20. Approve Application No. 515338 for a RECLAIM/Title V revision plan.